

7.1.7 Contract Furnishings

The selection of furnishings—including workstations, cubicle partitions, chairs, desks, filing cabinets, window treatments, and other interior furniture—should consider many of the environmental issues raised by other products, such as life-cycle environmental impacts and effects on indoor air quality. In recent years, some manufacturers have taken steps to address environmental concerns by using materials with lower VOC emissions and higher recycled content, specifying wood from sustainably managed forests, and extending the useful life of products through reconditioning and remanufacturing. In addition, building owners and tenants are taking advantage of the adaptability of some types of furnishings and planning for future reconfigurations.

Opportunities

Renovation or reconfiguration of space, as well as moving into new space, provides opportunities for greening furnishings. These opportunities include the following:

- Salvaging, reconditioning, and reusing furnishings;
- Ordering new furnishings that have environmentally preferable attributes, such as high recycled content, low or no VOC emissions, and certified wood;
- Using furnishings that are designed for future flexibility and adaptability; and
- Increasing personal control over space conditioning, lighting, acoustics, and other elements.

Technical Information

Fabrics are used in upholstery, window treatments, workstations, and systems furniture. Issues to consider in choosing fabric are the environmental impacts of manufacturing the fabric, the potential for offgassing of chemicals, the potential for acting as a “sink” for chemicals (adsorbing chemicals on the surface and later releasing them back into the air), and the need for cleaning to prevent the buildup of dust and molds. Polyester fabrics are made from petroleum and natural gas, thus contributing to the depletion of this resource; wool production raises environmental issues regarding overgrazing, pesticides, and insect infestations; and cotton production involves a considerable amount of pesticides and soil depletion. Conventional dyes and fabric treatments can be toxic.

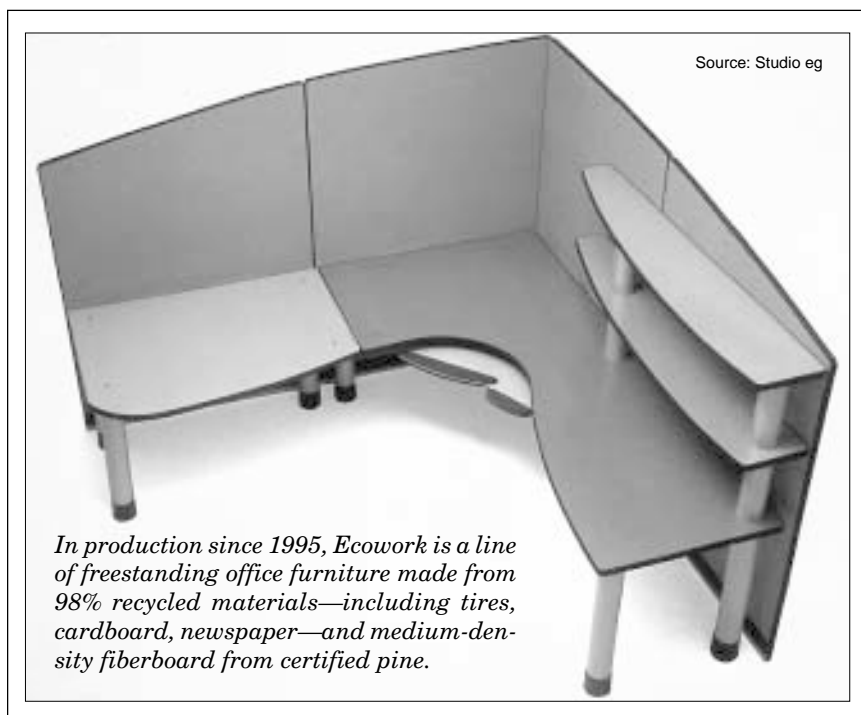


Innovative fabric lines include the William McDonough Fabric Collection and Recycled-PET Workstation Fabric from DesignTex, a Steelcase Design Partnership company. The McDonough Collection is a blend of wool and the plant fiber ramie. The company worked with sheep farmers to encourage low-impact grazing and the use of alternatives to toxic “dips,” and had a chemical company develop dyes that contained no hazardous ingredients or by-products. The PET fabric, called “Play it Again Sam,” uses no virgin materials but does use conventional dyes.

Polyesters are popular workstation panel fabrics because they are inexpensive, have inherent fire-retardant properties (usually not requiring further chemical treatments for flame resistance), and are easy to clean. The DesignTex Play it Again Sam polyester workstation panel fabric shown here is made from 100% recycled PET soda bottles.

Photo: DesignTex





Furniture. Many options are available for greening furniture selections. Salvaging and reusing furniture often has the lowest environmental impact; many companies refurbish and sell furniture. Steelcase and Herman Miller have furniture lines that are easily disassembled for recycling. The use of recycled steel and aluminum is relatively common, but manufacturers may not know the specifics of recycled content. Metal parts finished with powder coatings or no finish at all have lower environmental impacts than those finished with solvent-based spray paint. Wood furniture should be made from wood that is harvested from sustainably managed forests, as certified under Forest Stewardship Council guidelines, or that is reclaimed/salvaged.

Modular systems furniture is available in “environmental” lines that offer reclaimed or refurbished units and units made from recycled materials, low-VOC fabrics and composite woods, and natural fibers. Systems furniture offers several benefits for indoor environmental quality. It is flexible, allowing for easy (and low-cost) reconfiguration to meet changing needs without demolition and resulting waste. If the panel height of a partition is kept relatively low, daylight can penetrate into the space, reducing electric lighting requirements, and air can circulate more freely.

Cabinetry is often a source of indoor air quality problems because of its use of conventional composite wood products with urea formaldehyde binders. Neil Kelly Signature Cabinets has introduced a new line made

with certified wood, environmentally friendly finishes (such as natural oil/wax), and nonformaldehyde medium-density fiberboard.

Indoor air quality testing is now possible using relatively affordable kits from such companies as Air Quality Sciences (AQS) of Atlanta, Georgia. The AQS kit measures formaldehyde levels and total VOCs, lists the three primary VOCs detected, and enables mold and particulate samples to be collected for AQS laboratory analysis. Users might need assistance from an expert to interpret the results.

Access floors often can be selected along with furnishings. Access floors with modular systems furnishings provide maximum flexibility for electricity and tele-

communications cable distribution and for greater personal control over environmental conditions. The use of *Personal Environmental Monitors* or similar systems enable individuals to regulate comfort conditions at each workstation.

Resources

GreenSpec: The Environmental Building News Product Directory and Guideline Specifications, Building-Green, Inc., Brattleboro, VT, 1999; (800) 861-0954; www.greenspec.com.